Autonomous Precision Landing and Hazard Avoidance Technology (ALHAT) Project Status as of May 2010

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ABSTRACT

This paper will discuss the current status of NASA's Autonomous precision Landing and Hazard Avoidance Technology (ALHAT) project. The ALHAT team has completed several flight tests and two major analysis cycles. These tests and analyses examine terrain relative navigation (TRN) sensors, hazard detection and avoidance (HDA) sensors and algorithms, and hazard relative navigation (HRN) algorithms, as well as the guidance and navigation system utilizing these ALHAT functions. The next flight test is scheduled for June 2010. The paper will discuss pertinent results from completed flight tests and analyses cycles. The status of the ALHAT system, upcoming tests and analyses will be outlined. The current plans for the ALHAT project will also be included. Additionally, application of the ALHAT system to landing on bodies other than the Moon will be addressed.